

## Health Cost Index: All Benefit Components See Quarterly Increase Except Prescription Drug

We continue to present the two Health Cost Index series as we have in the past few quarters. In keeping with the notation used over the last couple of quarters, the current series with the original benefit weights is referred to as the “Pre-2005 HCI” and the new series with the revised benefit weights as the “2005 HCI”. Following this update, we hope to transition to the Beta HCI series, replacing both the Pre-2005 HCI and 2005 HCI.

Based on our HCI Beta model work, Medicare Advantage enrollment is affecting observed trends, and is also likely affecting our original models. In most years

the impacts are small. However, in the Beta HCI these shifts require nearly a 1% trend increase for 2003 and about a 1% trend decrease for 2006, to account for this shift.

The Pre-2005 benefit weighted **All Benefits** 12-month moving average trends ended the third quarter of 2007 at 8.0%, after an increase of 0.1% from the second quarter of 2007. The new 2005 HCI series increased marginally from the previous quarter, by 0.1%, to 9.1% in the third quarter of 2007. Note that the All Benefits 2005 HCI series reflects the effects of leveraging due to fixed copayments and deductibles. On a three month moving average basis, the Pre-2005 All Benefits

### The Health Cost Index Highlights

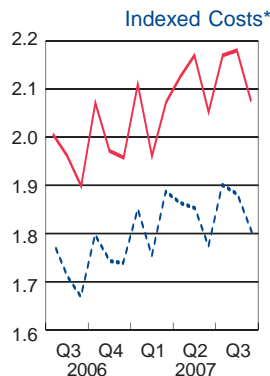
#### Health Cost Index

##### Pre-2005 HCI Series

3rd Quarter 2006 (Avg.): 1.7158  
3rd Quarter 2007 (Avg.): 1.8580

##### 2005 HCI Series

3rd Quarter 2006 (Avg.): 1.9556  
3rd Quarter 2007 (Avg.): 2.1415

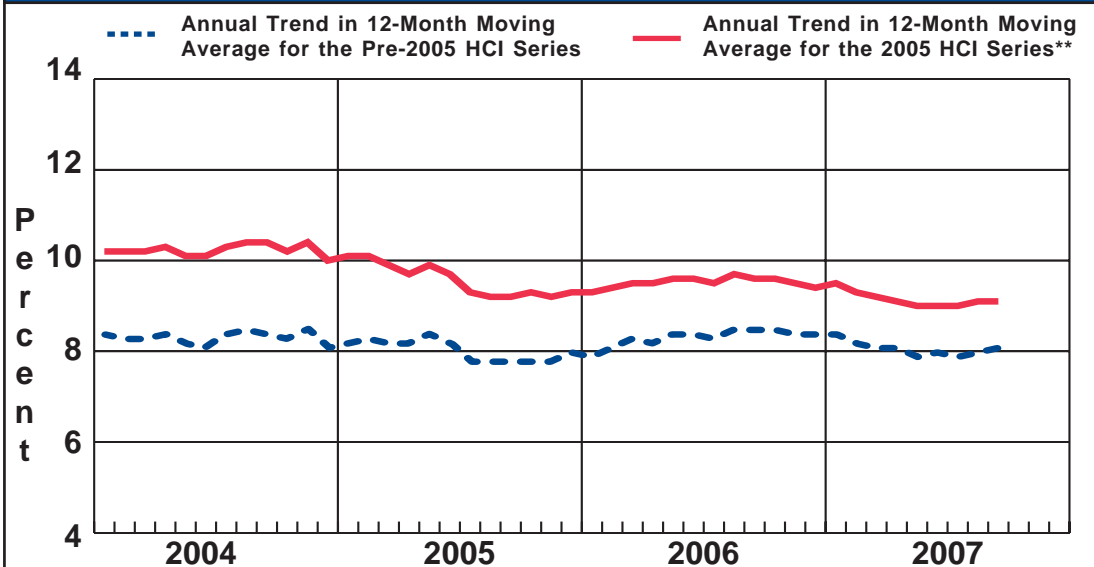


\*Indexed at 1/00

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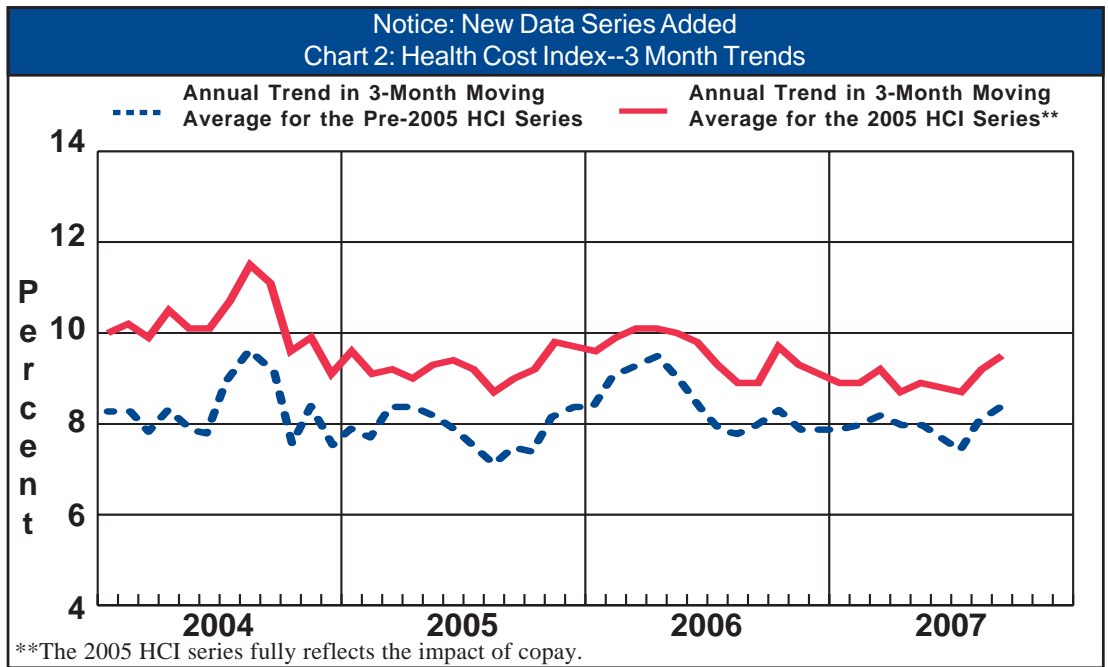
Notice: New Data Series Added  
Chart 1: Health Cost Index--12-Month Trends



\*\*The 2005 HCI series fully reflects the impact of copay.

Health Cost Index

“Utilization trends ended the third quarter of 2007 at 3.1%, a 0.2% increase from the second quarter.”

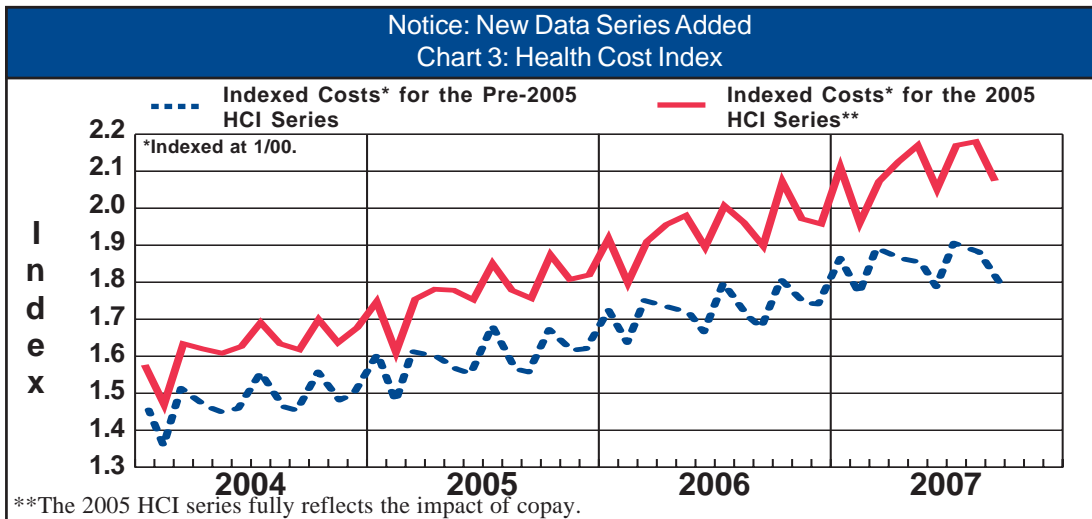


series ended the third quarter at 8.3%, a 0.7% increase from the second quarter. The new 2005 HCI All Benefits series' three month trends increased by 0.7%, from 8.8% to 9.5%.

**Price** trends ended the third quarter of 2007 at 4.7%, an increase of 0.1% from the second quarter. **Mix/Intensity** trends have decreased by 0.3% to -0.8% during the past three months. **Utilization** trends ended the third quarter of 2007 at 3.1%, a 0.2% increase from the second quarter. **Leverage** trends ended the third quarter at 0.8%. Leverage trends have remained steady since early 2005.

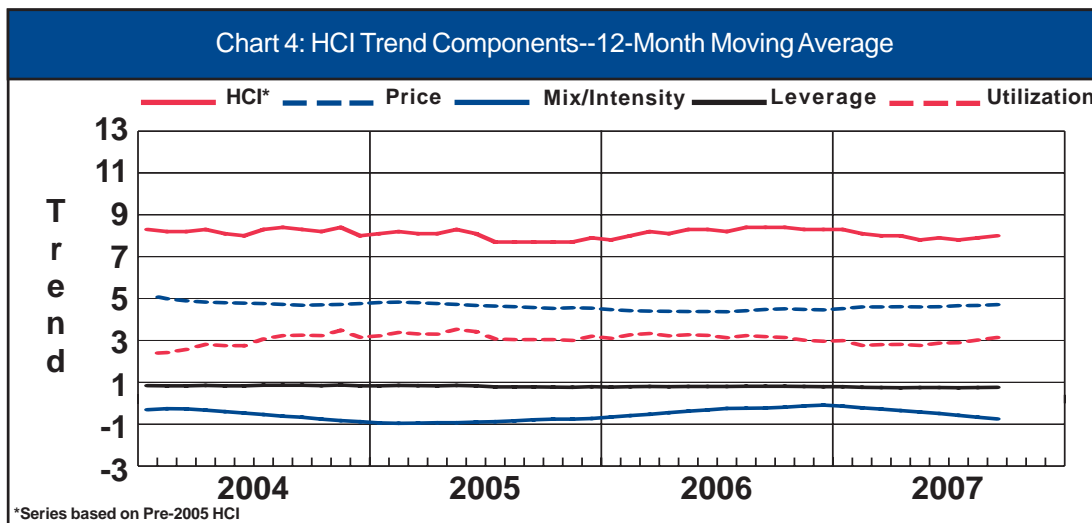
Unlike the All Benefits trends, the benefit component trends do not reflect the effect of leveraging due to fixed copayments or deductibles. **Hospital Inpatient** trends increased by 0.3% to 6.0% during the third quarter of 2007 for the Pre-2005 HCI and the 2005 HCI trends increased by 0.3% to 5.6%. In the third quarter of 2007, **Hospital Outpatient** trends increased by 0.2% to 9.2% in the Pre-2005 HCI and increased

by 0.2% to 9.0% in the 2005 HCI. This is the first quarterly increase in Hospital Outpatient trends since the first quarter of 2006. In the previous five quarters, Hospital Outpatient trends decreased by about 2.0%. Both the Pre-2005 and 2005 HCI saw an increase in **Physician** trends. This follows three quarterly decreases that saw physician trends decline by about 1.0%. The Pre-2005 Physician HCI ended the third quarter at 6.1% following a 0.2% increase and the 2005 Physician HCI increased by 0.3%, ending the third quarter at 7.0%. Unlike the Hospital and Physician components, **Prescription Drug** trends declined during the third quarter of 2007. During the most recent quarter, drug trends decreased by 0.5% to 8.3%, for both the Pre-2005 and the 2005 HCI. Double digit increases in drug trends were prevalent from the mid-nineties up until 2003. Subsequent declines pushed prescription drug trends below 5.0% in late 2005 and into early 2006. Thereafter drug trends had increased steadily until this quarter's decrease. ■



### Health Cost Index

*“During the most recent quarter, drug trends decreased by 0.5% to 8.3%, for both the Pre-2005 and the 2005 HCI.”*



The following table looks at the 12-Month Moving Average benefit components (not reflecting the effect of leveraging due to fixed copayments or deductibles):

Benefit Components (not reflecting the effect of leveraging due to fixed copayments or deductibles)

	Pre-2005 HCI Series			2005 HCI Series		
	Jun-07	Sept-07	Change	Jun-07	Sept-07	Change
All Benefits*	7.9%	8.0%	0.1%	9.0%	9.1%	0.1%
Hospital Inpatient	5.7%	6.0%	0.3%	5.3%	5.6%	0.3%
Hospital Outpatient	9.0%	9.2%	0.2%	8.8%	9.0%	0.2%
Physician	5.9%	6.1%	0.2%	6.7%	7.0%	0.3%
Prescription Drug	8.8%	8.3%	-0.5%	8.8%	8.3%	-0.5%
All Other	N/A	N/A	N/A	1.9%	2.4%	0.5%

\*Total (All Benefits) reflects the effect of leveraging due to fixed copayments or deductibles

# Projections

*“...we expect these trends to remain relatively stable through 2007 and into 2008...”*

The third quarter of 2007 saw moderate increases in trends for both the Pre-2005 and the 2005 HCI. Based on our models, we expect these trends to remain relatively stable through 2007 and into 2008 for both the Pre-2005 HCI forecast and the 2005 HCI forecast. Both of these are illustrated in the chart below, along with their respective forecasts from the third quarter of 2006.

Our forecasts are based on proprietary econometric models that exploit the fact that economic activity leads health care cost increases by three to four years. In addition, we reflect the concurrent impact of changes in overall price inflation, Medicare reimbursement policies on the non-Medicare population’s health care costs (which the HCI focuses on), and a variable intended to capture the impact of managed care on medical cost trends. Because economic activity is the only leading indicator in our models, the other factors are based on scenarios. Thus, if the scenarios we use vary from actual results, our forecasts are also likely to vary from actual results. For example, if inflation is higher than our scenarios or Medicare reimburse-

ments are further reduced, then trends are likely to be higher than our forecasts, and vice versa.

### Forecast Accuracy:

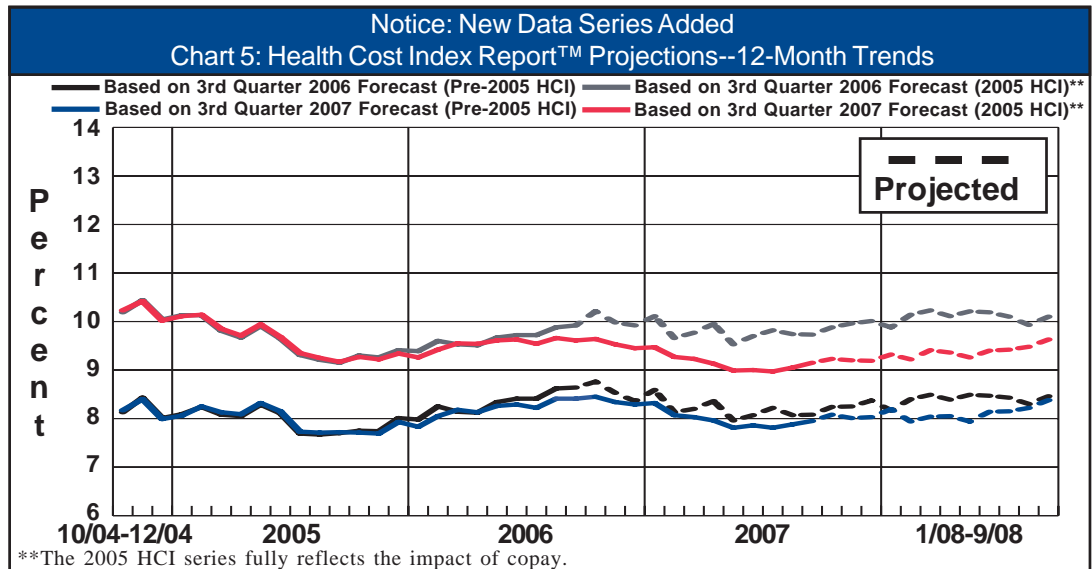
Periodic revisions in the HCI data sources and legislated Medicare and other changes, make it difficult to accurately assess our models forecast performance. Chart 5 illustrates the impact of data revisions (the difference between the solid lines) on the HCI forecast by comparing the current 12-month trend forecast to the third quarter 2006 forecast.

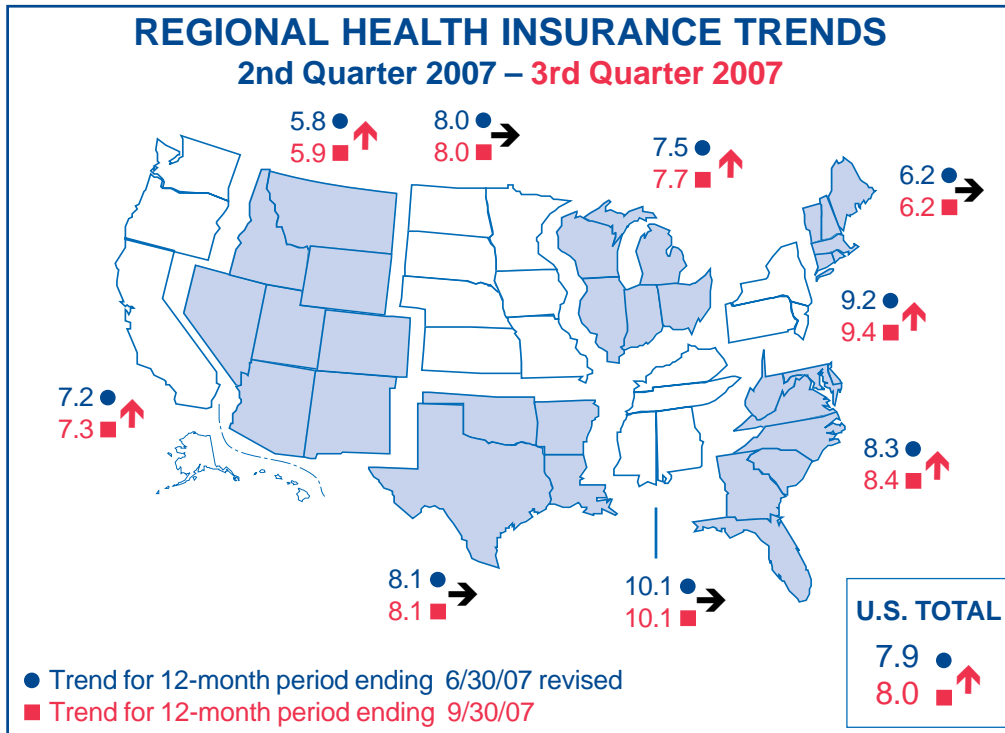
### Caveats:

Because of the data revisions, scenarios, and legislative changes mentioned above, Milliman, Inc. in no way warrants the accuracy of these forecasts and accepts no responsibility for any damages or losses that may be incurred from their use or misuse. Like any other forecast these have substantial uncertainty and unanticipated factors can affect their accuracy.

### More Information:

Milliman makes the underlying HCI data available for users to compare their own experience to the HCI. ■

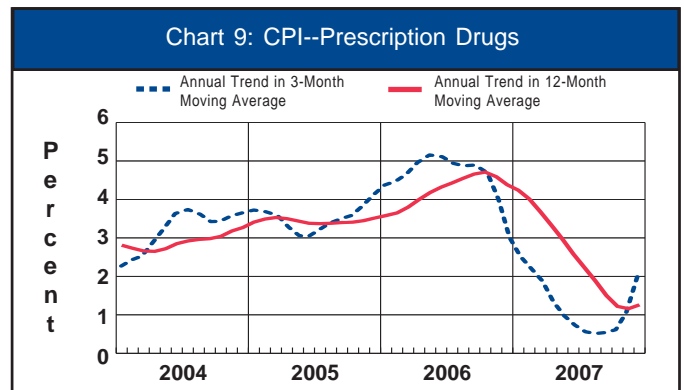
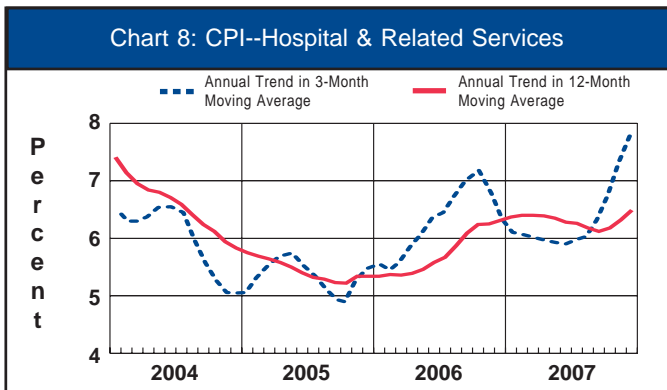
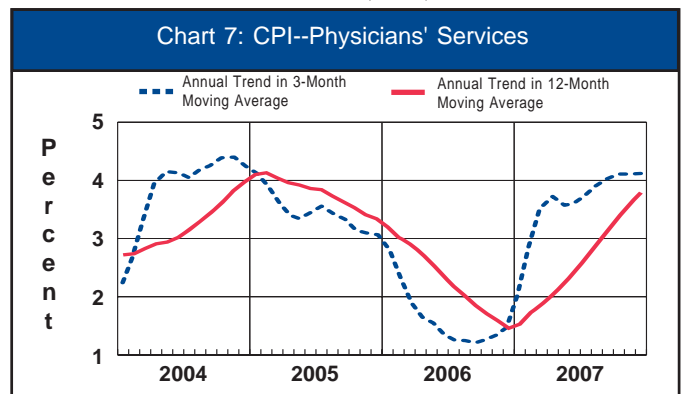
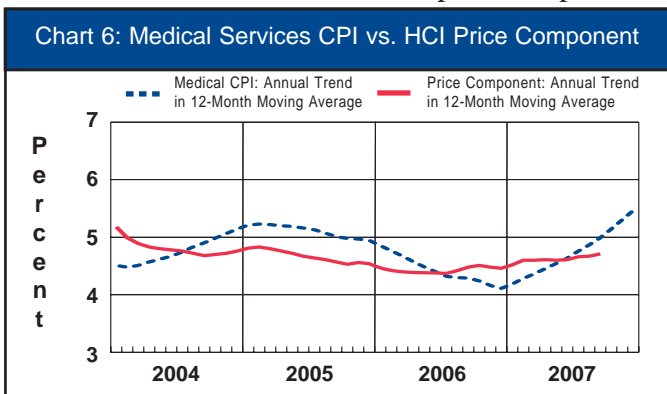




The above Chart shows the regional Pre-2005 Health Cost Index trends for the most recent and prior quarters.

## Economy Highlights - Graphs

The following Charts illustrate recent trends in various components of the CPI, as well as the price component of the Pre-2005 Health Cost Index (HCI).

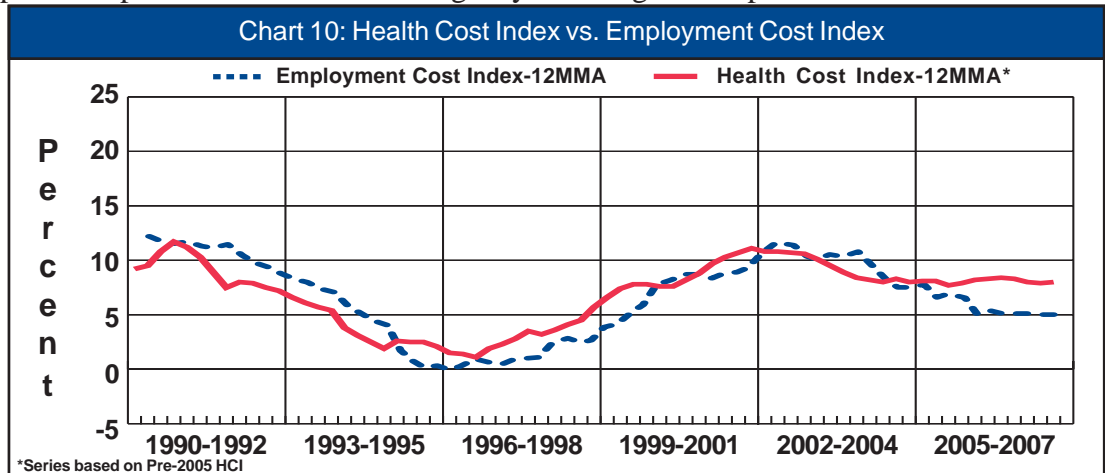


# Underwriting Cycle Watch

During the third quarter of 2007, health insurance premium trends remained unchanged. Chart 10, below, depicts 12-month moving average trends of the HCI vs the Health Insurance sub-index of the Employment Cost Index (ECI), published by the BLS. For the year ending September 2007, ECI health insurance premiums increased 4.8%. The gap between the series appears to have widened recently. This will continue as employers continue to buy down increases by benefit reductions. Also contributing to this gap is some non-profits targeting reduced or no underwriting gains due to political pressure on their Contingency

Reserves. In addition, based on our HCI Beta model work, Medicare Advantage enrollment is affecting observed trends, and is also likely affecting our original models. In most years the impacts are small. However, in the Beta HCI these shifts require nearly a 1% trend increase for 2003, and about a 1% trend decrease for 2006, to account for this shift.

The ECI reflects premiums paid by employers, and can be lower than insurer's requested rates due to benefit reductions, shifting a greater share of premiums to employees, or shifting more employees to lower cost options. The ECI reflects swings in competitiveness in the market. ■



## Health Cost Index Description

The Health Cost Index™ is derived for a typical \$250 deductible PPO Medical Plan with office visit, drug, and ER copays.

The Health Cost Index™ (HCI) is Milliman's proprietary measure of health care cost increases. The HCI is based on a proprietary model which uses data gathered from the providers of health care (hospitals, physicians, pharmacies, etc.) to capture changes in health care costs per capita for the overall population (excluding Medicare).

Thus, the Health Cost Index™ estimates the underlying pattern of revenue trends that health care providers are generating from the non-Medicare population. The HCI can act as an independent measure of health care cost increases or as a benchmark/modeling tool for insurers, employers or health care providers.

Because the HCI captures market average forces affecting trends, certain factors which can affect an individual insurer, employer or provider will cause actual trends to differ from the HCI.

For example, actual trends will vary according to geographic location, type and mix of business, underwriting, demographics, reimbursement mechanisms, health care cost controls, government mandates, etc. Further, the HCI does not reflect the impact on trends of anti-selection due to HMO/PPO penetration, other enrollment changes, flexible benefits,

or other related factors, and does not reflect statistical fluctuations resulting from the limited size of a group. The HCI also does not reflect the impact on trends of durational effects from preexisting conditions limits, health statement underwriting, or effects from changes in new sales or termination rates.

Because of these and other factors, we could expect trends for aggressively managed Managed Care Organizations to be below the HCI. Likewise, insurers whose programs resemble traditional indemnity insurance are likely to experience cost trends substantially higher than the HCI. Actual experience for insurers, employers and health care providers may vary substantially over six month to multi-year time frames due solely to statistical fluctuations with the magnitude depending on the size of the group.

### For More Information About The Health Cost Index Report™

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